

## Amendments In The Claims

Claim 1 (allowed);

1. A method of measuring a data signal to create an eye diagram of that signal, the method  
2 comprising the steps of:
  - (a) setting a hits count to zero;
  - (b) comparing the instantaneous voltage of a clock signal associated with the data signal to a clock threshold voltage to produce a logical clock signal;
  - (c) delaying the logical clock signal by a selected first amount to produce a delayed logical clock signal;
  - (d) comparing the instantaneous voltage of the data signal to be measured to a data threshold voltage to produce a logical data signal;
  - (e) delaying the logical data signal by a selected second amount to produce a delayed logical data signal;
  - (f) delaying the delayed logical clock signal by a selected third amount to produce a doubly delayed logical clock signal;
  - (g) capturing the value of the delayed logical data signal in response to the delayed logical clock signal;
  - (h) capturing the value of the delayed logical data signal in response to the doubly delayed logical clock signal;
  - (i) incrementing the hits count each time a value captured in step (g) is different to that captured in step (h);
  - (j) repeating steps (b) through (i) until a selected condition is satisfied;
  - (k) subsequent to step (j), storing the count of step (i) in a data structure indexed by the difference between the first and second amounts and by the data threshold voltage;
  - (l) repeating steps (a) through (k) with different combinations of the data threshold voltage and difference between the first and second amounts; and
  - (m) generating an eye diagram from the hits counts stored in the data structure.

Claim 2 (CANCELED).

\* \* \* \* \*